



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUN 10 2013

REPLY TO THE ATTENTION OF:

Andrew Hall
Division of Air Pollution Control
Ohio Environmental Protection Agency
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

Dear Mr. Hall:

The U.S. Environmental Protection Agency has reviewed the draft Prevention of Significant Deterioration permit (PSD), permit number P0111667, for BP-Husky Refining LLC (BPH), located in Oregon, Ohio. The proposed project, Toledo Feedstock Optimization (TFO) Project, will allow BPH to process crude oils originating in the BPH Sunrise fields in Canada, or other crude having similar characteristics. The project will trigger PSD and will require Best Available Control Technology (BACT) review for Greenhouse Gases (GHG). The facility will be netting out of PSD for all other criteria pollutants. To ensure that the source meets Federal Clean Air Act requirements, that the permit will provide necessary information so that the basis of the permit decision is transparent and readily accessible to the public, and that the permit record provides adequate support for the decision, EPA has the following comments:

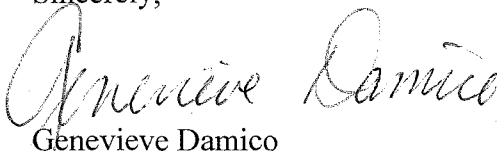
1. In BPH's permit application, it states that the reduction in coker blowdown gases will offset any other increases in the amount of gas going to the flare system from the coker as a result of the project. There does not appear to be a qualitative analysis that demonstrates that the reduction in coker blowdown gases is significant enough to prevent an increase in flared gases. Please provide an analysis that demonstrates this.
2. In BPH's permit application, it states that the sulfur loading at the Sulfur Recovery Units (SRUs) will likely increase as a result of the project. It also states that the SRUs are already running near capacity. The emission calculations assume that the utilization of the SRUs will increase to the current maximum capacity; however there is no additional documentation supporting the assumption that the sulfur loading will not increase above the maximum capacity of the SRUs. Sulfur loading above the maximum capacity of the SRUs may result in higher sulfur emissions in the heaters and boilers that use refinery gas, higher emission and/or increased acid gas flaring due to the increased downtime of the SRUs. All of these would affect the emissions analysis presented by BPH. Please provide additional documentation to support the assumptions made for the SRUs.

3. Ensure all permits to install (PTIs) that fall within the contemporaneous period are addressed. It appears that PTIs P0106190 and P0107416 issued June 24, 2010 and May 8, 2012, respectively, were not addressed in the netting analysis.
4. Emission units: B015, B030, B031, B033, B034, and B035 have interim sulfur dioxide (SO₂) limits listed in the draft permit, but do not list final SO₂ limits. Please clarify what the final limits will be for the emission units.
5. On page 15 of the draft permit, the final SO₂ limit for B029 is listed as 0.94 tons per year (tpy), but on page 38 it is listed as 0.69 tpy. Please clarify which limitation is correct and ensure the permit is consistent.
6. BPH's analysis does not include the permit issued on January 4, 2013, which imposed SO₂ limits on multiple units. The imposed limits were taken to avoid PSD for SO₂ for this permitting action. The draft permit should clearly indicate that the interim and final SO₂ limits are synthetic minor limits under PSD.
7. The cost analysis for selective catalytic reduction (SCR) as best available technology (BAT) has several discrepancies from the Office of Air Quality and Planning Standards Cost Control Manual (CCM), which is referenced in various sections as the basis for calculations. The CCM indicates that for SCR, there should be no additional labor costs, no additional supervisory labor, no property taxes, minimal insurance, insignificant administrative costs and no overhead costs, however BPH's SCR analysis includes significant costs for all of these items. The CCM indicates that for an SCR, the equipment life should be 20 years, but BPH used 15 years. The cost of catalyst replacement incorrectly uses a cost recovery factor instead of a future worth factor. It is unclear why BPH is including 1 percent of the cost of natural gas for the proposed heater toward the BAT cost analysis. Please provide an explanation for deviating from the recommendations in the CCM or reevaluate the SCR BAT consistent with the CCM recommendations.
8. BPH is proposing to install larger heaters for the Crude Unit and the Vacuum Unit. The current size of Crude 1 Heater is 325 mmBtu/hr and after the TFO project it will be 450 mmBtu/hr. The current size of Vacuum 1 Heater is 140 mmBtu/hr and after the TFO project it will be 150 mmBtu/hr. However, the permit strategy write-up states that the project will not increase the overall crude capacity of the refinery. Please provide an explanation for needing the larger heaters if the refining capacity is not increasing.
9. The draft permit has carbon dioxide (CO₂) as a surrogate for GHG emissions including a CO₂ tpy GHG BACT limit for emission units B037, B038, and B039. However, both the table on page 64 of the permit's Staff Determination as well as the Applicable Compliance Method on page 74 specifies a carbon dioxide equivalent value. Since the regulated pollutant is GHG, the GHG emission limit(s) should account for not only CO₂, but for all GHGs emitted. Please also clarify how compliance will be demonstrated for each of the GHGs.

10. The permit's Staff Determination "Selection of GHG BACT" section says that "compliance will be demonstrated through records of the heater design, records of fuel usage, and maintenance records." Please explain what is meant by "records of the heater design" and how that will be used to demonstrate compliance with the GHG emission limits.
11. The permit strategy write-up includes discussion of carbon capture and sequestration (CCS). Much of the information is verbatim from Appendix F of the application. Please provide additional detail on its analysis of CCS and how it was determined as an infeasible option for BACT.

We appreciate the opportunity to provide comments on this permit. If you have any questions, please feel free to contact Charmagne Ackerman at (312) 886-0448.

Sincerely,

A handwritten signature in cursive script that reads "Genevieve Damico".

Genevieve Damico

Chief

Air Permits Section